

**Supplemental
Notice of Allowability**

Application No.

10/721,318

Examiner

Zinna Northington Davis

Applicant(s)

DOW ET AL.

Art Unit

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE, Amendment, and Information Disclosure Statement filed April 10, 2006.
2. ☒ The allowed claim(s) is/are 1, 3-49, 55, 56, 59-101, 103, and 104 (now renumbered as 1-95, respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

SUPPLEMENTAL EXAMINER'S AMENDMENT

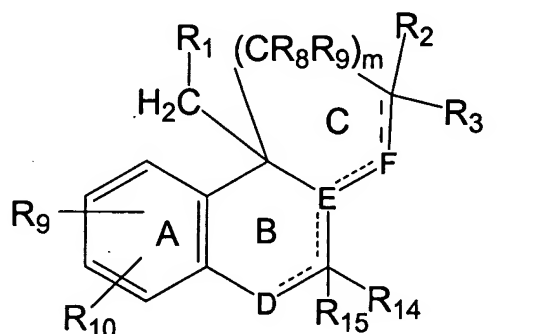
1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Brandon Boss on June 20, 2006 and July 31, 2006.

3. The application has been amended as follows:

A. Claim 1 has been amended to read in favor of:

--1. (Currently Amended) A compound of formula I



an isomer thereof, a prodrug of said compound or isomer, or a pharmaceutically acceptable salt of said compound, isomer or prodrug;

wherein m is 1 or 2;

- - - represents an optional bond;

D is CR₇, or CR₇R₁₆;

E is C or CR₆;

F is CR₄, or CR₄R₅;

R₁ is aryl', wherein aryl' is substituted independently with 0, 1 or 2 of the following: -Z-OH, -Z-NR₁₂R₁₃, -Z-NR₁₂-het, -C(O)NR₁₂R₁₃, -C(O)O(C₁-C₆)alkyl,

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-C(O)OH, -C(O)-het, -NR₁₂-C(O)-(C₁-C₆)alkyl, -NR₁₂-C(O)-(C₂-C₆)alkenyl, -NR₁₂-C(O)-(C₂-C₆)alkynyl, -NR₁₂-C(O)-Z-het, -CN, -Z-het, -O-(C₁-C₃)alkyl-C(O)-NR₁₂R₁₃, -O-(C₁-C₃)alkyl-C(O)O(C₁-C₆)alkyl, -NR₁₂-Z-C(O)O(C₁-C₆)alkyl, -N(Z-C(O)O(C₁-C₆)alkyl)₂, -NR₁₂-Z-C(O)-NR₁₂R₁₃, -Z-NR₁₂-SO₂-R₁₃, -NR₁₂-SO₂-het, -C(O)H, -Z-NR₁₂-Z-O(C₁-C₆)alkyl, -Z-NR₁₂-Z-NR₁₂R₁₃, -Z-NR₁₂-(C₃-C₆)cycloalkyl, -Z-N(Z-O(C₁-C₆)alkyl)₂, -SO₂R₁₂, -SOR₁₂, -SR₁₂, -SO₂NR₁₂R₁₃, -O-C(O)-(C₁-C₄)alkyl, -O-SO₂-(C₁-C₄)alkyl, -halo or -CF₃;

Z for each occurrence is independently a) -(C₀-C₆)alkyl, b) -(C₂-C₆)alkenyl or c) -(C₂-C₆)alkynyl;

R₂ is a) -H, b) -halo, c) -OH, d) -(C₁-C₆)alkyl substituted with 0 or 1 -OH, e) -NR₁₂R₁₃, f) -Z-C(O)O(C₁-C₆)alkyl, g) -Z-C(O)NR₁₂R₁₃, h) -O-(C₁-C₆)alkyl, i) -Z-O-C(O)-(C₁-C₆)alkyl, j) -Z-O-(C₁-C₃)alkyl-C(O)-NR₁₂R₁₃, k) -Z-O-(C₁-C₃)alkyl-C(O)-O(C₁-C₆)alkyl, l) -O-(C₂-C₆)alkenyl, m) -O-(C₂-C₆)alkynyl, n) -O-Z-het, o) -COOH, p) -C(OH)R₁₂R₁₃ or q) -Z-CN;

R₃ is a) -H, b) -(C₁-C₁₀)alkyl wherein 1 or 2 carbon atoms, other than the connecting carbon atom, may optionally be replaced with 1 or 2 heteroatoms independently selected from S, O and N and wherein each carbon atom is substituted with 0, 1 or 2 R_y, c) -(C₂-C₁₀)alkenyl substituted with 0, 1 or 2 R_y, d) -(C₂-C₁₀)alkynyl wherein 1 carbon atom, other than the connecting carbon atom, may optionally be replaced with 1 oxygen atom and wherein each carbon atom is substituted with 0, 1 or 2 R_y, e) -CH=C=CH₂, f) -CN, g) -(C₃-C₆)cycloalkyl, h) -Z-aryl, i) -Z-het, j) -C(O)O(C₁-C₆)alkyl, k) -O(C₁-C₆)alkyl, l) -Z-S-R₁₂, m) -Z-S(O)-R₁₂, n) -Z-S(O)₂-R₁₂, o) -CF₃ p) -NR₁₂O-(C₁-C₆)alkyl or q) -CH₂OR_y;

provided that one of R₂ and R₃ is absent when there is a double bond between CR₂R₃ (the 7 position) and the F moiety (the 8 position) of the C-ring;

R_y for each occurrence is independently a) -OH, b) -halo, c) -Z-CF₃, d) -Z-CF(C₁-C₃ alkyl)₂, e) -CN, f) -NR₁₂R₁₃, g) -(C₃-C₆)cycloalkyl, h) -(C₃-C₆)cycloalkenyl, i) -(C₀-C₃)alkyl-aryl, j) -het or k) -N₃;

or R₂ and R₃ are taken together to form a) =CHR₁₁, b) =NOR₁₁, c) =O, d) =N-NR₁₂, e) =N-NR₁₂-C(O)-R₁₂, f) oxiranyl or g) 1,3-dioxolan-4-yl;

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R₄ and R₅ for each occurrence are independently a) -H, b) -CN, c) -(C₁-C₆)alkyl substituted with 0 to 3 halo, d) -(C₂-C₆)alkenyl substituted with 0 to 3 halo, e) -(C₂-C₆)alkynyl substituted with 0 to 3 halo, f) -O-(C₁-C₆)alkyl substituted with 0 to 3 halo, g) -O-(C₂-C₆)alkenyl substituted with 0 to 3 halo, h) -O-(C₂-C₆)alkynyl substituted with 0 to 3 halo, i) halo, j) -OH, k) (C₃-C₆)cycloalkyl or l) (C₃-C₆)cycloalkenyl;

or R₄ and R₅ are taken together to form =O;

R₆ is a) -H, b) -CN, c) -(C₁-C₆)alkyl substituted with 0 to 3 halo, d) -(C₂-C₆)alkenyl substituted with 0 to 3 halo, e) -(C₂-C₆)alkynyl substituted with 0 to 3 halo or f) -OH;

R₇ and R₁₆ for each occurrence are independently a) -H, b) -halo, c) -CN, d) -(C₁-C₆)alkyl substituted with 0 to 3 halo, e) -(C₂-C₆)alkenyl substituted with 0 to 3 halo or f) -(C₂-C₆)alkynyl substituted with 0 to 3 halo;

or R₇ and R₁₆ are taken together to form =O;

R₈, R₉, R₁₄ and R₁₅ for each occurrence are independently a) -H, b) -halo, c) (C₁-C₆)alkyl substituted with 0 to 3 halo, d) -(C₂-C₆)alkenyl substituted with 0 to 3 halo, e) -(C₂-C₆)alkynyl substituted with 0 to 3 halo, f) -CN, g) -(C₃-C₆)cycloalkyl, h) -(C₃-C₆)cycloalkenyl, i) -OH, j) -O-(C₁-C₆)alkyl, k) -O-(C₁-C₆)alkenyl, l) -O-(C₁-C₆)alkynyl, m) -NR₁₂R₁₃, n) -C(O)OR₁₂ or o) -C(O)NR₁₂R₁₃;

or R₈ and R₉ are taken together on the C-ring to form =O; provided that when m is 2, only one set of R₈ and R₉ are taken together to form =O;

or R₁₄ and R₁₅ are taken together to form =O; provided that when R₁₄ and R₁₅ are taken together to form =O, D is other than CR₇ and E is other than C;

R₁₀ is a) -(C₁-C₁₀)alkyl substituted with 0 to 3 substituents independently selected from -halo, -OH and -N₃, b) -(C₂-C₁₀)alkenyl substituted with 0 to 3 substituents independently selected from -halo, -OH and -N₃, c) -(C₂-C₁₀)alkynyl substituted with 0 to 3 substituents independently selected from -halo, -OH and -N₃, d) -halo, e) -Z-CN, f) -OH, g) -Z-het, h) -Z-NR₁₂R₁₃, i) -Z-C(O)-het, j) -Z-C(O)-(C₁-C₆)alkyl, k) -Z-C(O)-NR₁₂R₁₃, l) -Z-C(O)-NR₁₂-Z-CN, m) -Z-C(O)-NR₁₂-Z-het, n) -Z-C(O)-NR₁₂-Z-aryl, o) -Z-C(O)-NR₁₂-Z-NR₁₂R₁₃, p) -Z-C(O)-NR₁₂-Z-O(C₁-C₆)alkyl, q) -(C₀-C₆)alkyl-C(O)OH, r) -Z-C(O)O(C₁-C₆)alkyl, s) -Z-O-(C₀-C₆)alkyl-het, t) -Z-O-(C₀-C₆)alkyl-aryl, u) -Z-O-(C₁-C₆)alkyl substituted with 0 to 2 R_x, v) -Z-O-(C₁-C₆)alkyl-CH(O), w)

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-Z-O-(C₁-C₆)alkyl-NR₁₂-het, x) -Z-O-Z-het-Z-het, y) -Z-O-Z-het-Z-NR₁₂R₁₃, z)
 -Z-O-Z-het-C(O)-het, a1) -Z-O-Z-C(O)-het, b1) -Z-O-Z-C(O)-het-het, c1)
 -Z-O-Z-C(O)-(C₁-C₆)alkyl, d1) -Z-O-Z-C(S)-NR₁₂R₁₃, e1) -Z-O-Z-C(O)-NR₁₂R₁₃, f1)
 -Z-O-Z-(C₁-C₃)alkyl-C(O)-NR₁₂R₁₃, g1) -Z-O-Z-C(O)-O(C₁-C₆)alkyl, h1) -Z-O-Z-C(O)-OH, i1)
 -Z-O-Z-C(O)-NR₁₂-O(C₁-C₆)alkyl, j1) -Z-O-Z-C(O)-NR₁₂-OH, k1)
 -Z-O-Z-C(O)-NR₁₂-Z-NR₁₂R₁₃, l1) -Z-O-Z-C(O)-NR₁₂-Z-het, m1)
 -Z-O-Z-C(O)-NR₁₂-SO₂-(C₁-C₆)alkyl, n1) -Z-O-Z-C(=NR₁₂)(NR₁₂R₁₃), o1)
 -Z-O-Z-C(=NOR₁₂)(NR₁₂R₁₃), p1) -Z-NR₁₂-C(O)-O-Z-NR₁₂R₁₃, q1) -Z-S-C(O)-NR₁₂R₁₃, r1)
 -Z-O-SO₂-(C₁-C₆)alkyl, s1) -Z-O-SO₂-aryl, t1) -Z-O-SO₂-NR₁₂R₁₃, u1) -Z-O-SO₂-CF₃, v1)
 -Z-NR₁₂C(O)OR₁₃ or w1) -Z-NR₁₂C(O)R₁₃;

R₁₁ is a) -H, b) -(C₁-C₅)alkyl, c) -(C₃-C₆)cycloalkyl or d) -(C₀-C₃)alkyl-aryl;

R₁₂ and R₁₃ for each occurrence are each independently a) -H, b) -(C₁-C₆)alkyl wherein 1 or 2 carbon atoms, other than the connecting carbon atom, may optionally be replaced with 1 or 2 heteroatoms independently selected from S, O and N and wherein each carbon atom is substituted with 0 to 6 halo, c) -(C₂-C₆)alkenyl substituted with 0 to 6 halo or d) -(C₁-C₆)alkynyl wherein 1 carbon atom, other than the connecting carbon atom, may optionally be replaced with 1 oxygen atom and wherein each carbon atom is substituted with 0 to 6 halo;

or R₁₂ and R₁₃ are taken together with N to form het;

or R₆ and R₁₄ or R₁₅ are taken together to form 1,3-dioxolanyl;

aryl is a) phenyl substituted with 0 to 3 R_x, b) naphthyl substituted with 0 to 3 R_x or c) biphenyl substituted with 0 to 3 R_x;

het is a 5-, 6- or 7-membered saturated, partially saturated or unsaturated ring containing from one (1) to three (3) heteroatoms independently selected from the group consisting of nitrogen, oxygen and sulfur; and including any bicyclic group in which any of the above heterocyclic rings is fused to a benzene ring or another heterocycle; and the nitrogen may be in the oxidized state giving the N-oxide form; and substituted with 0 to 3 R_x;

R_x for each occurrence is independently a) -halo, b) -OH, c) -(C₁-C₆)alkyl, d) -(C₂-C₆)alkenyl, e) -(C₂-C₆)alkynyl, f) -O(C₁-C₆)alkyl, g) -O(C₂-C₆)alkenyl, h)

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-O(C₂-C₆)alkynyl, i) -(C₀-C₆)alkyl-NR₁₂R₁₃, j) -C(O)-NR₁₂R₁₃, k) -Z-SO₂R₁₂, l) -Z-SOR₁₂, m) -Z-SR₁₂, n) -NR₁₂-SO₂R₁₃, o) -NR₁₂-C(O)-R₁₃, p) -NR₁₂-OR₁₃, q) -SO₂-NR₁₂R₁₃, r) -CN, s) -CF₃, t) -C(O)(C₁-C₆)alkyl, u) =O, v) -Z-SO₂-phenyl or w) -Z-SO₂-het';

aryl' is phenyl, naphthyl or biphenyl;

het' is a 5-, 6- or 7-membered saturated, partially saturated or unsaturated ring containing from one (1) to three (3) heteroatoms independently selected from the group consisting of nitrogen, oxygen and sulfur; and including any bicyclic group in which any of the above heterocyclic rings is fused to a benzene ring or another heterocycle;

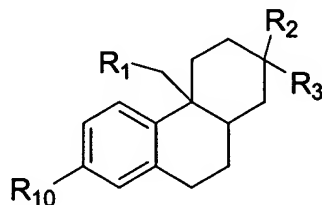
provided that:

1) when R₉ and R₁₀ are substituents on the A-ring, they are other than mono- or di-methoxy; and

2) when R₂ and R₃ taken together are C=O and R₉ is hydrogen on the A-ring; or when R₂ is hydroxy, R₃ is hydrogen and R₉ is hydrogen on the A-ring, then R₁₀ is other than -O-(C₁-C₆)alkyl or -O-CH₂-phenyl at the 2-position of the A-ring.--

B. Claim 5 has been amended to read in favor of:

--5. (Currently Amended) A compound of claim 4 of formula II



II

an isomer thereof, a prodrug of said compound or isomer, or a pharmaceutically acceptable salt of said compound, isomer or prodrug;

wherein R₁ is phenyl substituted with zero or one of the following: -OH, -NR₁₂R₁₃,

-NR₁₂-C(O)-(C₁-C₄)alkyl, -CN, -Z-het, -O-(C₁-C₃)alkyl-C(O)-NR₁₂R₁₃,

-NR₁₂-Z-C(O)-NR₁₂R₁₃, -Z-NR₁₂-SO₂-R₁₃, -NR₁₂-SO₂-het, -O-C(O)-(C₁-C₄)alkyl or

-O-SO₂-(C₁-C₄)alkyl; d) -O-phenyl substituted with 0 or 1 of the following: -Z-NR₁₂R₁₃ or

-C(O)NR₁₂R₁₃, or e) -CH=CH-phenyl wherein phenyl is substituted with 0 or 1 of the following: -Z-NR₁₂R₁₃ or -C(O)NR₁₂R₁₃;

Z for each occurrence is independently -(C₀-C₂)alkyl;

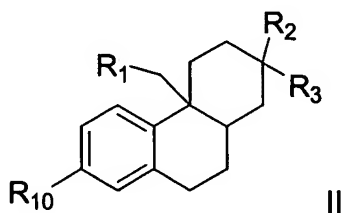
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R_{10} is a) $-\text{CH}(\text{OH})(\text{C}_1\text{-C}_5)\text{alkyl}$, b) $-\text{CN}$, c) $-\text{OH}$, d) $-\text{het}$, e) $-\text{C}(\text{O})-(\text{C}_1\text{-C}_4)\text{alkyl}$, f) $-\text{C}(\text{O})-\text{NR}_{12}\text{R}_{13}$, g) $-\text{C}(\text{O})-\text{NH}-\text{Z}-\text{het}$, h) $-\text{O}-(\text{C}_0\text{-C}_2)\text{alkyl}-\text{het}$, i) $-\text{O}-\text{Z}-\text{C}(\text{O})-\text{NR}_{12}\text{R}_{13}$, j) $-\text{O}-\text{Z}-\text{C}(\text{O})-\text{NH}-(\text{C}_0\text{-C}_3)\text{alkyl}-\text{het}$ or k) $-\text{O}-\text{Z}-\text{C}(\text{O})-\text{NH}-(\text{C}_0\text{-C}_3)\text{alkyl}-\text{NR}_{12}\text{R}_{13}$;

R_{12} and R_{13} are independently a) $-\text{H}$ or b) $-(\text{C}_1\text{-C}_4)\text{alkyl}$;
or R_{12} and R_{13} are taken together with N to form het .--.

C. Claim 6 has been amended to read in favor of:

--6. (Currently Amended) A compound of claim 5 of formula II



an isomer thereof, a prodrug of said compound or isomer, or a pharmaceutically acceptable salt of said compound, isomer or prodrug;

wherein R_1 is phenyl;

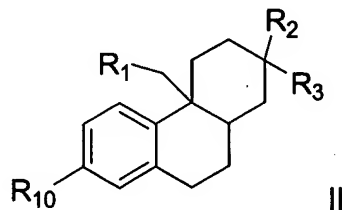
R_2 is $-\text{OH}$;

R_3 is a) $-(\text{C}_1\text{-C}_6)\text{alkyl}$ substituted with 0 or 1 CF_3 , b) $-\text{C}\equiv\text{C}-\text{CH}_3$, c) $-\text{C}\equiv\text{C}-\text{Cl}$, d) $-\text{C}\equiv\text{C}-\text{CF}_3$, e) $-\text{CH}_2\text{O}(\text{C}_1\text{-C}_3)\text{alkyl}$ substituted with 0 or 1 CF_3 , or f) $-\text{CF}_3$;

R_{10} is $-\text{OH}$.--.

D. Claim 9 has been amended to read in favor of:

--9. (Currently Amended) A compound of claim 5 of formula II



an isomer thereof, a prodrug of said compound or isomer, or a pharmaceutically acceptable salt of said compound, isomer or prodrug;

wherein R_1 is phenyl;

R_2 is $-\text{OH}$;

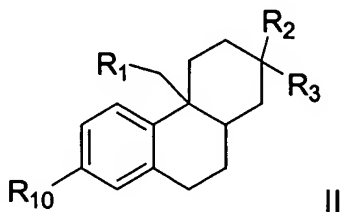
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R₃ is a) -(C₁-C₅)alkyl substituted with 0 or 1 CF₃, b) -C≡C-CH₃, c) -C≡C-Cl, d) -C≡C-CF₃, e) -CH₂O(C₁-C₃)alkyl substituted with 0 or 1 CF₃, or f) -CF₃;

R₁₀ is -CN.--.

E. Claim 16 has been amended to read in favor of:

--16. (Currently Amended) The compound of claim 5 of formula II



an isomer thereof, a prodrug of said compound or isomer, or a pharmaceutically acceptable salt of said compound, isomer or prodrug;

wherein R₁ is phenyl;

R₂ is -OH;

R₃ is a) -(C₁-C₆)alkyl substituted with 0 or 1 CF₃, b) -C≡C-CH₃, c) -C≡C-Cl, d) -C≡C-CF₃, e) -CH₂O(C₁-C₃)alkyl substituted with 0 or 1 CF₃, or f) -CF₃;

R₁₀ is -C(O)-NH-Z-het wherein het is selected from the group consisting of a) pyridinyl substituted with 0 or 1 methyl, b) pyrimidinyl, c) pyrazinyl, d) morpholinyl and e) oxadiazolyl;

Z is -(C₀-C₂) alkyl.--.

F. Claim 18 has been amended to read in favor of:

--18. (Currently Amended) A compound of claim 17 selected from the group consisting of:

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-N-(4-pyridinylmethyl)-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-N-(2-pyridinylmethyl)-, [4bS-(4b α ,7 α ,8a β)]-;

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2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-N-(3-pyridinylmethyl)-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-N-2-pyridinyl-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-N-pyrazinyl-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-N-3-pyridinyl-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-N-[(2-methyl-3-pyridinyl)methyl]-4b-(phenylmethyl)-7-(1-propynyl)-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-N-[(2-methyl-3-pyridinyl)methyl]-4b-(phenylmethyl)-7-propyl-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-propyl-N-(2-pyridinylmethyl)-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-propyl-N-(4-pyridinylmethyl)-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-propyl-N-(3-pyridinylmethyl)-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-propyl-N-2-pyridinyl-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-propyl-N-4-pyridinyl-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-propyl-N-3-pyridinyl-, [4bS-(4b α ,7 α ,8a β)]-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-N-[(2-methyl-3-pyridinyl)methyl]-4b-(phenylmethyl)-7-(3,3,3-trifluoropropyl)-, (4bS,7S,8aR)-;

2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-7-methyl-N-[(2-methyl-3-pyridinyl)methyl]-4b-(phenylmethyl)-, (4bS,7R,8aR)-;

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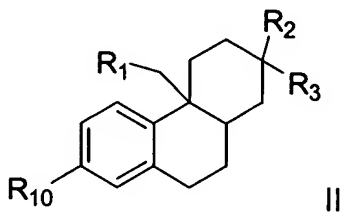
2-phenanthrenecarboxamide, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-7-methyl-4b-(phenylmethyl)-*N*-3-pyridinyl-, (4b*S*,7*R*,8a*R*)-; and

2-phenanthrenecarboxamide, 4b, 5, 6, 7, 8, 8a, 9, 10-octahydro-7-hydroxy-*N*-[(2-methyl-3-pyridinyl)methyl]-4b-(phenylmethyl)-7-(trifluoromethyl)-, (4b*S*, 7*R*, 8a*R*)-;

or a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug.--.

G. Claim 31 has been amended to read in favor of:

--31. (Currently Amended) A compound of claim 5 of formula II



an isomer thereof, a prodrug of said compound or isomer, or a pharmaceutically acceptable salt of said compound, isomer or prodrug;

wherein R_1 is phenyl;

R_2 is -OH;

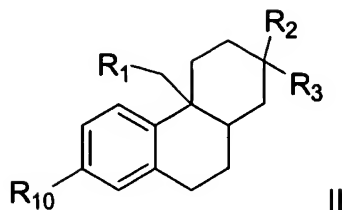
R_3 is a) -(C₁-C₄)alkyl substituted with 0 or 1 CF₃, b) -C≡C-CH₃, c) -C≡C-Cl, d) -C≡C-CF₃, e) -CH₂O(C₁-C₃)alkyl substituted with 0 or 1 CF₃, or f) -CF₃;

R_{10} is -O-(C₁-C₂)alkyl-het wherein het is selected from the group consisting of a) pyridinyl substituted with 0 or 1 methyl, b) pyrimidinyl, c) pyrazinyl, d) morpholinyl and f) oxadiazolyl.--.

H. Claim 41 has been amended to read in favor of:

--41. (Currently Amended) A compound of claim 5 of formula II

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an isomer thereof, a prodrug of said compound or isomer, or a pharmaceutically acceptable salt of said compound, isomer or prodrug.

wherein R_1 is phenyl;

R_2 is -OH;

R_3 is a) $-(C_1-C_4)$ alkyl substituted with 0 or 1 CF_3 , b) $-C\equiv C-CH_3$, c) $-C\equiv C-Cl$, d) $-C\equiv C-CF_3$, e) $-CH_2O(C_1-C_3)$ alkyl substituted with 0 or 1 CF_3 , or f) $-CF_3$;

R_{10} is a) $-O-Z-C(O)-NH-(C_0-C_3)$ alkyl- $N((C_1-C_2)$ alkyl) $_2$, b) $-O-Z-C(O)-NR_{12}R_{13}$, or c) $-O-Z-C(O)-NH-(C_0-C_3)$ alkyl-het wherein het is selected from the group consisting of 1) pyridinyl substituted with 0 or 1 methyl, 2) pyrimidinyl, 3) pyrazinyl, 4) morpholinyl, 5) pyrrolidinyl, 6) imidazolyl and 7) oxadiazolyl;

R_{12} and R_{13} are independently a) -H or b) $-(C_1-C_2)$ alkyl; or R_{12} and R_{13} taken together with N to form pyrrolidinyl;

Z is $-(C_0-C_1)$ alkyl.--.

I. Claim 43 has been amended to read in favor of:

--43. (Currently Amended) A compound of claim 42 selected from the group consisting of:

carbamic acid, dimethyl-, 7-(chloroethynyl)-4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-2-phenanthrenyl ester, (4bS,8aR)-;

1-pyrrolidinecarboxylic acid, 7-(chloroethynyl)-4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-2-phenanthrenyl ester, (4bS,8aR)-;

carbamic acid, [2-(1-pyrrolidinyl)ethyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, monohydrochloride, [4bS-(4b α ,7 α ,8a β)]-;

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carbamic acid, [2-(4-morpholinyl)ethyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, [3-(1*H*-imidazol-1-yl)propyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, [2-(dimethylamino)ethyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, [3-(1-pyrrolidinyl)propyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, [2-(3-pyridinyl)ethyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, (2-pyridinylmethyl)-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, [2-(2-pyridinyl)ethyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, (4-pyridinylmethyl)-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, (3-pyridinylmethyl)-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-; and

carbamic acid, [2-(4-pyridinyl)ethyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

or a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug.--.

J. Claim 44 has been amended to read in favor of:

--44. (Currently Amended) A compound of claim 43 selected from the group consisting of:

carbamic acid, [2-(1-pyrrolidinyl)ethyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, monohydrochloride, [4bS-(4b α ,7 α ,8a β)]-;

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carbamic acid, [2-(dimethylamino)ethyl]-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, (2-pyridinylmethyl)-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

carbamic acid, (4-pyridinylmethyl)-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-; and

carbamic acid, (3-pyridinylmethyl)-, 4b,5,6,7,8,8a,9,10-octahydro-7-hydroxy-4b-(phenylmethyl)-7-(1-propynyl)-2-phenanthrenyl ester, [4bS-(4b α ,7 α ,8a β)]-;

a prodrug thereof, or a pharmaceutically acceptable salt of said compound or prodrug.--.

REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance:
5. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 10, 2006 has been entered.
6. The changes made by Examiner's amendment are editorial in nature. The changes have been made to improve the clarity of the claims. The changes are not made to avoid any possible rejections based upon prior art.
7. In the Examiner's Amendment mailed June 27, 2006, claims 62-98 have been cancelled in error.

8. Based upon the amendment filed April 10, 2006, all composition claims and method claims have been rejoined with the subject matter of claim 1.

9. The Information Disclosure Statement filed April 10, 2006 has been considered. The references alone or in combination forms do not teach nor suggest structurally similar compounds as those instantly claimed.

10. To complete the record, the references cited on the PTO-892 have been cited and considered in the parent application. These references alone or in combination forms do not teach nor suggest structurally similar compounds as those instantly claimed.

11. Based upon the amendment filed April 10, 2006, the improper Markush objection has been withdrawn. The claims, as amended, are drawn to a proper Markush grouping.

12. Based upon the amendment filed April 10, 2006, the rejection under 35 U.S.C. §102 (b) based upon Houlihan et al. has been withdrawn. Houlihan et al. teach a heterocyclic compound for formula (I). The instantly claimed compounds must always represent a carbocyclic compound for formula (I). As such, the Houlihan et al. compounds do not anticipate nor render obvious the instantly claimed compounds.

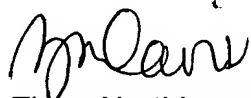
13. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zinna Northington Davis whose telephone number is 571-272-0682. The examiner can normally be reached on M-F.

15. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Zinna Northington Davis
Primary Examiner
Art Unit 1625